



Grid-Scale Rampable Intermittent Dispatchable Storage (GRIDS)

ARPA-E seeks to develop new technologies that enable widespread use of cost-effective grid-scale energy storage. While valuable applications for grid-scale storage exist, this program focuses on technologies that balance the short-duration variability in renewable generation. Investing in these technologies will position the U.S. as technology and manufacturing leader of the emerging, and potentially massive, global market for stationary electricity storage infrastructure.

GRIDS seeks to develop revolutionary modular storage systems that provide the energy, cost, and lifecycle of pumped hydropower, and can be widely implemented across the power grid.

Specifically, GRIDS considers two areas:

1. Proof-of-concept storage-component projects focused on validating new, over-the-horizon, electrical energy storage concepts, and
2. Advanced system prototypes that address critical shortcomings of existing grid-scale energy storage technologies. Ultimately, technologies developed through this program will be scalable to megawatt and megawatt-hour levels of power and energy capacity.

GRIDS will complement other DOE grid-scale energy storage efforts by focusing on technology prototyping and proof-of-concept research and development, rather than pilot demonstration projects.

Timeline

- Secretary Steven Chu announced the funding opportunity at the Energy Innovation Summit on March 2, 2010.
- Secretary Steven Chu announced the award selections on July 12, 2010.

Project stats

- 12 projects, totaling approximately \$27.7 Million
- Complete descriptions can be found at:
<http://arpa-e.energy.gov/ProgramsProjects/GRIDS.aspx>

Program Director

- Dr. Mark Johnson

